ANSWERS: Electronegativity

1) Bromine circled (greater electronegativity).

Lower electronegativity means less attraction of a bonded atom for a bonding pair of electrons.
The lower value for iodine indicates that the attraction for the bonding pair in compounds is less than the attraction for bonding pairs in compounds of bromine. As the radii of atoms increase, electronegativity decreases, despite the increased nuclear charge. This is due to more energy levels being added.
Iodine has a greater number of shells (5th row) than bromine (4th row). This factor outweighs the increased nuclear charge (53 protons) of the iodine atom, as compared to the bromine atom (35 protons).

2) Se has more shells/electrons in energy levels further from the nucleus than O, with increased shielding from inner shells. This means there is a weaker electrostatic attraction between the nucleus and the bonded electrons, so Se has a lower electronegativity than O.

3) Electronegativity increases across a period
Electronegativity increases up a group

From K to As:
Electronegativity increases because
nuclear charge increases (while shielding remains same)causing increasing attraction to the nucleus

From N to As:
Electronegativity decreases because
(whilst nuclear charge and shielding increase at the same rate, electron shells are added and so) radii increase causing decreasing attraction to the nucleus.